

## IN THE CLAIMS

Please amend the claims to read as follows:

### Listing of Claims

1. (Currently Amended) An amplifier circuit comprising:
  - a constant-envelope signal generating section that generates first and second constant-envelope signals;
  - a local oscillating generating section that generates a first and second local signals signal and a second local signal which are used in frequency conversion of a first constant-envelope signal and a second constant-envelope signal having respective predetermined phases, the first local signal and the second local signal having a 180° phase difference therebetween;
  - a frequency conversion section that performs frequency-conversion of the first and second constant-envelope signals signal and the second constant-envelope signal using the generated first local signal and second local signals respectively signal;
  - an amplifying section that amplifies the frequency-converted first constant-envelope signal and second constant-envelope signals after the frequency-conversion signal; and
  - a combining section that combines the amplified first constant-envelope signal and second constant-envelope signals after the amplification, signal
- the amplifier circuit further comprising:
  - a local signal phase-shifting section that rotates phases of the first and second local signals before the frequency-conversion, so that the first and second local signals after the rotation have a 180° phase difference; and

a constant-envelope signal phase-shifting section that rotates a phase of the first constant-envelope signal before the frequency-conversion, by the same amount as the rotation of the first local signal and in an opposite direction to the rotation of the first local signal, and rotates a phase of the second constant-envelope signal before the frequency conversion, by the same amount as the rotation of the second local signal and in an opposite direction to the rotation of the second local signal.

2. (Original) The amplifier circuit according to claim 1, further comprising a local signal phase adjustment section that adjusts a phase of at least one of the generated first local signal and second local signal.

3. (Original) The amplifier circuit according to claim 2, further comprising: a detecting section that detects a level of leakage of the local signals in an output signal obtained as a result of combining by the combining section; and a phase control section that controls the local signal phase adjustment section in such a manner that the detected level is minimized.

4. (Original) The amplifier circuit according to claim 1, further comprising a local signal amplitude adjustment section that adjusts an amplitude of at least one of the generated first local signal and second local signal.

5. (Original) The amplifier circuit according to claim 4, further comprising: a detecting section that detects a level of leakage of the local signals in an output signal obtained as a result of

combining by the combining section; and an amplitude control section that controls the local signal amplitude adjustment section in such a manner that the detected level is minimized.

6. (Original) The amplifier circuit according to claim 1, further comprising a constant-envelope signal phase adjustment section that adjusts a phase of at least one of the frequency-modulated first constant-envelope signal and second constant-envelope signal.

7. (Original) A wireless base station apparatus comprising the amplifier circuit according to claim 1.

8. (Original) A wireless terminal apparatus comprising the amplifier circuit according to claim 1.

9. (New) An amplifier circuit comprising:

- a constant-envelope signal generating section that generates first and second constant-envelope signals;
- a local oscillating section that generates first and second local signals;
- a frequency conversion section that performs frequency-conversion of the first and second constant-envelope signals using the first and second local signals respectively;
- an amplifying section that amplifies the first and second constant-envelope signals after the frequency-conversion; and

a combining section that combines the first and second constant-envelope signals after the amplification,

the amplifier circuit further comprising:

a local signal phase-shifting section that rotates a phase of the first local signal without rotating a phase of the second local signal before the frequency-conversion, so that the first and second local signals after the rotation have a  $180^\circ$  phase difference; and

a constant-envelope phase-shifting section that rotates a phase of the first constant-envelope signal without rotating a phase of the second constant-envelope signal before the frequency-conversion, by the same amount as the rotation of the first local signal and in an opposite direction to the rotation of the first local signal.